

# Fairfax County



## *Deer Management Report*

***2001***

*Fairfax County Police Department  
Animal Services Division  
Wildlife Section*

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# Highlights

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- No injuries or incidences.
- 500 deer harvested.
- Cost of \$17.94 per deer taken in managed hunts and \$22.97 per deer taken by sharpshooters.
- 12% decrease in the number of dead deer picked up by VDOT last year and a 30% decrease since deer control program began.
- 222 deer (nearly 8 tons) processed for distribution within Fairfax County by Food For Others.
- Pilot Archery Program successfully conducted at Huntley Meadows Park.

## **Actions Directed By Board Of Supervisors**

On September 27, 1999 the Board of Supervisors approved seven parks for deer herd management activities. These included twelve Fairfax County Park Authority (FCPA) parks and four Northern Virginia Regional Park Authority (NVRPA) parks. The Boards of both park authorities were authorized to determine the most appropriate management method for individual sites. The FCPA locations were approved only for sharpshooting and the NVRPA locations were approved for either technique or a combination of both.

The following year FCPA and the NVRPA Boards approved additional parks for deer management activities. The following list of parks were selected and approved as possible sites for various control actions. Methods listed in boldface type represent the actions taken at that site. Those sites not showing one or more methods in boldface received no control actions this year for various reasons.

<b>Park</b>	<b>Size</b>	<b>Method</b>	<b>Mgt. Hunts</b>
Upper Potomac NVRPA	363.3 ac.	<b>Managed Hunts/Sharpshooting</b>	12/13/00 1/10/01
Riverbend Park FCPA	418.2 ac	Sharpshooting	
Scotts Run FCPA	384.3 ac.	Sharpshooting	
Colvin Run S.V. FCPA	70.8 ac.	Archery/Sharpshooting	
Difficult Run S.V. FCPA	863.3 ac.	Archery/Sharpshooting	
Lake Fairfax Park FCPA	478.9 ac.	Sharpshooting	
Sully Plantation FCPA	61.8 ac.	Sharpshooting	
E.C. Lawrence Park FCPA	648.8 ac.	<b>Sharpshooting</b>	
Cub Run S.V. FCPA	825.5 ac.	Archery/Sharpshooting	
Huntley Meadows Park FCPA	1425.5 ac.	<b>Archery/ Sharpshooting</b>	3/9/01 3/13/01 3/14/01
Bull Run Park NVRPA	871.2 ac.	<b>Managed Hunts/Archery</b>	12/5/00 * 12/19/00*

		<b>Sharpshooting</b>	1/16/01
Occoquan Park NVRPA	150 ac.	<b>Sharpshooting</b>	
Fountainhead Park NVRPA Occoquan Watershed Properties	849.6 ac.	<b>Managed Hunts/Archery/ Sharpshooting</b>	12/6/00 12/20/00
Burke Lake FCPA	883.4 ac.	Archery/Sharpshooting	
Lake Accotink FCPA	479.6 ac	Sharpshooting	
Wakefield Park FCPA	292.6 ac.	Sharpshooting	
Meadowlark Gardens NVRPA	95.9 ac.	Archery/Sharpshooting	

**\* Cub Run Area only**

On October 16, 2000, the Board of Supervisors voted to support the Fairfax County Park Authority Board=s action to approve the implementation of a pilot archery program within selected parks.

## **Actions Taken**

Seven half day hunts were held between December 5, 2000 and January 16, 2001. There were two hunts held on Northern Virginia Regional Park Authorities Upper Potomac properties, three held at Bull Run Regional Park and two held at Fountainhead Regional Park. A lottery was held to select hunters. A total of 86 qualified hunters which included minorities, women and the mobility impaired participated in these hunts. Hunters selected in the lottery were assigned to particular parks and were eligible to participate in all hunts held at that park. This enabled hunters to become more familiar with their assigned park and thus more effective. Each applicant was charged a non-refundable \$10.00 application fee for the managed hunt lottery. A total of 86 applicants applied for the managed hunts resulting in revenue of \$860.00.

Twenty-three sharpshooting missions were conducted in 6 parks between October 19, 2000 and February 28, 2001. The sharpshooting missions harvested 146 deer during 94.75 hours of operation resulting in 1.54 deer harvested per hour. The number of deer harvested increased by 64% and the harvest per hour dropped by 28%. This drop in deer per hour is an expected trend in parks that have had previous sharpshooting missions. There are fewer deer and the deer present become educated and are more difficult to approach. New parks also offer unknown challenges and it takes time to develop the most appropriate strategy for each new location.

A pilot archery program was conducted at Huntley Meadows Park. Unforeseen delays forced the hunts to be held very late in the winter. This is a very difficult season for

archery hunting. Weather was also a factor as it rained on two of the three hunt dates. Three deer were taken and there were no wounded deer lost. The pilot was a beneficial trial of the logistical requirements of a managed archery hunt. It also provided valuable experience.

## **Results**

The 7 managed hunts took a total of 351 deer (80% increase over 1999). Of these, 229 (70% increase over 1999) were does. The sharpshooting program took 146 deer (67% increase over 1999) of which 90 (34% increase over 1999) were does. The combined total of 319 does (58% increase over 1999) will make a significant difference in the growth rate of these herds. Most adult does would produce twin fawns in the spring. If we use a conservative figure of only one fawn produced per doe, the result is 816 (including the bucks taken) fewer deer in these parks this spring.

One method of measuring the results is to consider the vegetation these deer would have consumed. A deer eats 4-6 pounds of food per 100 pounds of body weight each day. Assuming an average consumption of 5 pounds and an average body weight of 100 pounds, these deer would have eaten 4,105 pounds of vegetation each day. In a year, this would amount to 1,498,325 pounds (749.2 tons) of vegetation removed from these parks and the surrounding neighborhoods.

Meat Donation this year was coordinated through Food For Others. Food for Others was the recipient of a state grant to pay processors to prepare and package the venison. All deer taken on sharpshooting missions plus 76 deer donated by participants in the managed hunts were taken to local processors. A total of 222 deer (approximately 8 tons) were taken to these processors. All processing fees were paid from the grant fund and were not an expense to the County. This grant was unexpected and may not be available in future years.

## **MANAGED HUNTS**

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Arrangements were made with shooting ranges in Fairfax County to conduct firearms qualifications for those selected in the managed hunt lottery. Qualification standards were developed in cooperation with personnel from U.S. Fish & Wildlife Service and Virginia Department of Game & Inland Fisheries. These standards are now acceptable for all managed hunts occurring in Fairfax County. This is more convenient and efficient for both the hunters and the agencies involved. By having the local shooting ranges conduct the firearm qualifications, County staff was not required and consequently there was no expense for the County.

On December 13, a new state record was set when 115 deer were harvested during a half-day managed hunt on Upper Potomac Regional Park and adjacent private property. However, this record was short lived. On January 16, another half-day managed hunt at

Bull Run Regional Park yielded 147 deer. These hunts illustrate how effective a well planned and orchestrated managed hunt can be as a management tool. Presently, managed hunts are being used in Fairfax County by the Northern Virginia Regional Park Authority, Mason Neck National Wildlife Refuge and Mason Neck State Park. This method should be reconsidered as an option for the larger Fairfax County Park Authority parks.

Bull Run Regional Park was originally identified as having the highest density of deer per square mile in Fairfax County. It was also estimated that it would take a minimum of five years to reduce this herd to the desired density of 15 – 20 per square mile. This goal may have been obtained in just three years. A new census will be conducted in August to reassess the control needs for this park. It is expected that only minimal control efforts will be needed at this park next fall. Bull Run may be able to move into a maintenance phase utilizing periodic control or yearly minimal control.

#### **2000/2001 Managed Hunts**

<b>Location</b>	<b># Hunters</b>	<b>Date</b>	<b>Does</b>	<b>Bucks</b>	<b>Daily Total</b>	<b>Cum. Tot</b>
Bull Run Hunt	17	12/5/00	15	3	18	18
Fountainhead Hunt	31	12/6/00	14	3	17	35
Bull Run Hunt	16	12/12/00	6	5	11	46
Upper Potomac Hunt	39	12/13/00	70	45	115	161
Fountainhead Hunt	28	12/20/00	13	4	17	178
Upper Potomac Hunt	40	1/10/01	14	12	26	204
Bull Run Hunt	52	1/16/01	97	50	147	351

## Managed Hunts Comparative Analysis

	1998/99	1999/00	2000/01
Number of Half Day Hunts	8	4	7
Total Hunter Days	142	134	222
Total Deer Taken	60	195	351
Success Rate	0.42253	1.455	1.58
Statewide Success Rate	0.095	0.095	0.083
Best One Day Total	13	81	147
Worst One Day Total	0 (rain)	11 (rain)	11 (windy)
Total Cost	\$66,607.18*	- \$1,855.12**	\$8,165.35***
Net Cost per Deer	\$1,110.12	-\$9.51	\$36.78
Actual Net Cost (Overtime – Revenue, \$860)	\$10,956*	\$1,452.88**	\$3,982.48***
Net Cost per Deer	\$182.60	\$7.45	\$17.94

### Cost Calculations

\* **1998** additional costs included materials and supplies (\$2,400), overtime pay for Fairfax County Park Authority (\$510), overtime pay for Fairfax County Animal Control (\$4,308) and overtime pay for Fairfax County Police (\$3,738). An overall cost of \$66,607.18 included all regular salaries, overtime, helicopter use, etc.

\*\* **1999/2000** costs included materials and supplies (\$35.76), and overtime pay for Fairfax County Animal Control (\$869.12) for a total additional cost of \$904.88. If only new expense is considered (i.e. supplies and overtime pay) the cost per deer would be \$4.64. If regular duty cost are included, Fairfax County Police expense was \$2,100.00. Wildlife Biologist salary was not included (except for \$218.88 in overtime cost). Total cost for all four managed hunts equals \$4,212.88. Deducting the revenue amount of \$2,760.00 leaves a net cost of \$1452.88 or \$7.45 per deer.

\*\*\* **2000/2001** This total cost of \$8,165.35 includes regular salaries, overtime and supplies minus the revenue of \$860 from lottery applications. If only new expenses are considered (i.e. supplies and overtime pay) the net cost would be \$3,982.48 which equates to \$17.94 per deer. It should be noted that the cost per deer in these managed hunts is low due to the fact that they occurred on NVRPA lands. The same hunts held on FCPA lands would be of greater expense to the County since FCPA staff and equipment would be required and would be a direct expense to the County.



## **SHARPSHOOTING**

The sharpshooting program was utilized for deer control in six parks. Sharpshooters visited parks on 23 occasions. This program continues to be refined with various types of equipment and techniques being tested for suitability each year. As predicted, the cost per deer taken increased and is expected to continue to increase yearly. This is a natural result of fewer deer being present and those remaining deer being more difficult to approach.

### **Sharpshooting Comparative Analysis**

<b>Expense</b>	<b>1999 Pilot</b>	<b>1999-2000</b>	<b>2000-2001</b>
Total Expense (regular salaries, overtime and supplies)	\$6642.48	\$4824.34	\$12,304.11
Deer taken	107	89	146
Cost per deer	\$62.07	\$54.21	\$84.27
Actual New Cost (overtime and supplies)	\$667.71	\$368.46	\$3,354.23
Actual cost per deer	\$6.24	\$4.14	\$22.97

## 2000/01 Sharpshooting Missions

Date	Location	Doe	Buck	Total	Cumulative Tot.
10/19/00 3.25 hrs	Fountainhead	1	0	1	1
11/7/00 3.25 hrs	Bull Run	5	1	6	7
11/14/00 4.5 hrs	Meadowlark	2	1	3	10
11/20/00 5.0 hrs	Meadowlark	0	1	1	11
11/30/00 4.0 hrs	Occoquan	3	2	5	16
12/26/00 4.75 hrs	Huntley Meadows	5	2	7	23
12/28/00 4.5 hrs	Huntley Meadows	2	4	6	29
1/2/01 4.5 hrs	Huntley Meadows	3	2	5	34
1/4/01 2.5 hrs	Fountainhead	0	0	0	34
1/11/01 5.0 hrs	Huntley Meadows	5	0	5	39
1/24/01 6.0 hrs	Bull Run	14	6	20	59
1/31/01 4.5 hrs	Bull Run	5	3	8	67
2/1/01 4.0 hrs	Bull Run	4	2	6	73

Date	Location	Doe	Buck	Total	Cumulative Tot.
2/6/01 4.0 hrs	Huntley Meadows	1	1	2	75
2/8/01 4.5 hrs	E.C.L.	9	6	15	90
2/12/01 4.0hrs	Bull Run	1	9	10	100
2/15/01 4.5hrs	E.C.L.	5	0	5	105
2/20/01 4.0 hrs	Bull Run	7	1	8	113
2/21/01 4.0 hrs	E.C.L.	7	2	9	122
2/22/01 3.5hrs	Bull Run	1	0	1	123
2/26/01 4.0hrs	Bull Run	5	2	7	130
2/27/01 3.5 hrs	E.C.L.	6	4	10	140
2/28/01 3.0 hrs	E.C.L.	2	4	6	146
<b>Totals =</b>	<b>94.75 hrs</b>	<b>93</b>	<b>53</b>	<b>146</b>	<b>146 deer</b>
					<b>Or 1.54 deer/hr</b>

## **PILOT ARCHERY HUNTS**

A pilot archery program was conducted at Huntley Meadows Park. Unforeseen delays forced the hunts to be held very late in the winter. This is a very difficult season for archery hunting. Weather was also a factor as it rained on two of the three hunt dates. Three deer were taken and there were no wounded deer lost. The pilot was a beneficial trial of the logistical requirements of a managed archery hunt. It also provided valuable experience in cooperative partnerships between County agencies, DOD, DGIF and local archery clubs. The cost per deer was high as has been the case with other pilot programs. Both Park Authority and Police Department staffing levels proved higher than was necessary. Lower staffing will be recommended for future archery hunts.

### **Pilot Archery Managed Hunt** Huntley Meadows Park

<b>Date</b>	<b># Hunters</b>	<b>Does</b>	<b>Bucks</b>	<b>Total</b>	<b>Cum. Total</b>
3/9/01		1	1	2	2
3/13/01		0	0	0	2
3/14/01		1	0	1	3

## **OTHER KNOWN SOURCES OF MORTALITY**

It is important to record and track other sources of deer mortality in order to develop an accurate understanding of the deer population within the County. Some of this data was not available at the time this report was written. This additional data will be supplied in a supplemental document once it becomes available.

Fairfax County Animal Control Officers and Fairfax County Police Officers are routinely dispatched to answer calls regarding injured deer. Most of the time these deer were injured as the result of an automobile accident. The other most common source of the injury is due to a collision with a stationary object (fence, plate glass window, etc.) The following data is for the calendar year of 2000. Some of the mortality data for calendar year 2000 was not available at the time this report was written.

Road killed deer, picked up by VDOT, have been used as one method to monitor the status of the Fairfax County deer herd. These numbers steadily trended upward during

the early 1990's. Managed hunts began early in 1998 and sharpshooting was piloted early in 1999. Both techniques have been utilized in various parks each year since 1998. These control efforts have coincided with a reversal in the trend of deer picked up by VDOT. Since 1998, numbers have decreased each year.

Official numbers provided by VDOT for the first quarter of 2000 are assumed to be incorrect. The numbers were adjusted to more closely follow the trend shown by the other nine months. Using this adjustment, there was a 12% decrease in the total deer picked up by VDOT in 2000 when compared to 1999 (without the adjustment, the single year decrease is 28%). Overall, there has been a 30% reduction in the number of deer picked up since control measures were initiated.

This is very encouraging and is further supported by a reversal in the upward trend in the number of state kill permits issued to county residents. These numbers were also increasing for a number of years. This could have been either due to the growth of the deer herd, increased citizen awareness of the DGIF permit program or a combination of the two. Since these numbers have now begun to decrease, it is most likely a correlation with deer herd size.

**Epizootic Hemorrhagic Disease (EHD)** made its debut in Fairfax County during the fall of 1999. Fifty-three dead deer were found in the southeastern portion of the County. This disease is of no threat to humans. Weather plays an important role in this disease. If the late summer weather is conducive to production of the insects, which transmit the disease, another episode could follow. There were no known outbreaks of EHD in Fairfax County in 2000.

**Mason Neck National Wildlife Refuge & Mason Neck State Park**

Mason Neck Hunts conducted by the U.S. Fish and Wildlife Service and Virginia State Parks.

Four one day (all day) hunts

Does 53	Bucks 56	Total.....	109
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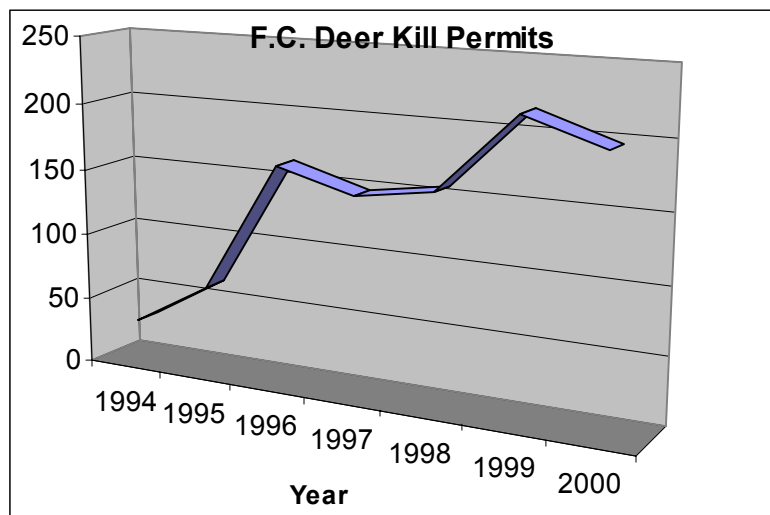
**Deer taken by hunters on Fort Belvoir (archery only).....179**

**Road-killed deer 1999** There were 930 deer carcasses picked up by VDOT during 1999. A conservative figure of 2 x 930 will be used here to account for deer which died off the right-of-way and those deer picked up by others. This number should not be confused with the actual number picked up as that is the number we typically track. The figure used here is an Estimated Number.....1860

## Kill Permits

The Virginia Department of Game & Inland Fisheries issues kill permits to property owners who can show evidence of deer damage. These permits allow the property owner or those designated by the owner to kill deer on the property outside of the normal deer hunting season. The importance of this program cannot be understated. The deer taken under this method and the deer taken during the regular deer hunting season are currently the only means available to provide relief to private communities. Although some larger properties utilize firearms, most of the deer are taken with archery equipment. The number of permits issued each year should not be used as a measure of deer damage. The method of issuing such permits has changed as has public awareness of this option. Virginia Department of Game and Inland Fisheries issued Fairfax County residents 197 kill permits in 2000 (a 9% decrease from 1999) and these resulted in 263 deer being harvested (208 of which were does).

Deer harvested in 2000 under the kill permit program,  
Does 208, Bucks 55.....Total.....263



## Hunting in Fairfax County

The rapid development and growth of Fairfax County continues and with it comes a corresponding loss of habitat. This forces deer and other wildlife into an ever diminishing area of available habitat. With this growth also comes a diminishing area in which the safe use of firearms is feasible. These factors have contributed to the growth of archery as the preferred means of deer control on private property. Archery has several advantages over firearms. It is quiet, safe and allows the hunter to better identify the age and sex of the targeted deer. Most deer taken by archers are at less than 20 yards. Since most archers hunt from elevated tree stands, all shots taken have the ground as a backstop.

In 2000 a total of 1024 deer were taken by hunters in Fairfax County. Of that total, 626 were taken with archery equipment and the remaining 283 were taken with shotguns. This level of effort by private landowners is a very important component in the overall approach to managing the County's deer herd.

Hunting.....1024

As these numbers and the success of the Fort Belvoir program illustrate, archery can be a valuable tool in the management of a deer herd. The safety of this method for the general public is unsurpassed. This is one of the few methods which would work in some of the smaller parks and some of the more narrow stream valley parks. It also is the most economical method for maintaining a herd at desired densities once those densities have been achieved through managed hunts or sharpshooting.

## SAFETY

Safety is often cited as a concern about managed hunts and sharpshooting. Once again there were no incidences in either the managed hunts or the sharpshooting missions. Only one person was encountered by park personnel during the managed hunts. This person was jogging and turned back when informed of the hunt in progress.

For the first time in three years, people were encountered during sharpshooting missions. One person was jogging and the other was attempting to walk a dog. Both were intercepted by police and reminded that the park had closed at dark.

A pilot archery program was conducted in Huntley Meadows Park during March without incident. A group of aerobic walkers entered the park during an archery hunt. The group was informed of the park closure and left without incident. The principle advantage of archery is public safety. All archers hunt from elevated tree stands and as a result utilize the ground as a backstop.

## **EDUCATION**

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Education efforts continue to expand with speaking engagements, acquisition of reference books on deer related topics by public libraries, the Fairfax County Deer Management brochure, gardening workshops, the County's Deer Management web page and the public safety Deer-Auto Crashes web page. Direct conversation continues to be viewed as the most beneficial form of education. This method allows a citizen to get all questions answered while allowing staff to measure citizen support or concerns. These opportunities occur during speaking engagements at HOA, club or professional organization meetings as well as exhibits at public events such as Celebrate Fairfax .

For the second year in a row, the Animal Control Division was invited to provide a display about white-tailed deer at the National Zoo during their celebration of International Seal Day. This two-day event attracts very large crowds (16,000+ on Saturday alone) and many of the visitors are Fairfax County residents. Comments received from visitors were overwhelmingly supportive of the County's Deer Management activities.

Fairfax County has made good use of the internet by posting updates of information on deer, control efforts, deer-related human safety issues.

## **ROADSIDE REFLECTORS**

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Roadside reflectors were installed along the Fairfax County Parkway. Statistics are being kept on accidents and dead deer picked up at these locations. This information will be compared to comparable sections of highway without reflectors to identify and measure any possible benefits. Information is posted on the public safety Deer-Auto Crashes web page.

## **IMMUNOCONTRACEPTION**

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Immunocontraception for deer continues to be a popular research field. Delivery of the drug to enough deer to be effective on a population scale remains the weakness of this technique. Staff has sought advice and opinions from those involved in immunocontraception research at several universities. The general opinion seems to be that this technique will not be practically available for approximately ten years. Fairfax County stands ready to cooperate with any university or other research organization seeking to develop such techniques as would be applicable in the control of a free ranging herd. No such research programs have been identified by staff nor have any researchers approached the County with offers.



## **THIS YEAR'S PROGRAM**

Data collection and herd assessment will continue in the parks listed in the table on pages 2 and 3. The control techniques listed for those parks will again be considered. This year managed hunts will be utilized in the same Regional Parks listed in the table if it is determined that additional herd reduction is required. Sharpshooting will be used to supplement those efforts and will be utilized in parks deemed unsuitable for managed hunts.

In addition to the parks listed in the table on pages 2 and 3, the following parks have been suggested for inclusion this year. Fox Mill Park (FCPA) will be added to the list for possible herd reduction due to citizen complaints. Hemlock Overlook Regional Park (NVRPA) will be added to the list due to habitat damage. Recommended control techniques for these locations have not yet been determined. The technique(s) selected will be announced at a later date.